

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

(M1) x (M2) y (M3) z O w

PUBLICATION NUMBER : 63256519  
PUBLICATION DATE : 24-10-88

APPLICATION DATE : 15-04-87  
APPLICATION NUMBER : 62092851

APPLICANT : NIPPON TELEGR & TELEPH CORP  
<NTT>;

INVENTOR : SUKEGAWA TAKESHI;

INT.CL. : C01G 3/00 H01B 13/00 // H01B 12/00  
H01L 39/12

TITLE : PRODUCTION OF  
SUPERCONDUCTOR

ABSTRACT : PURPOSE: To produce a high temp. superconductor having a sharp transition temp. width and superior characteristics in a short time and at low temp. with satisfactory reproducibility by heat treating an alkali hydrolyzed or solvolyzed product of a mixture of specified amts. of halides or nitrates of elements constituting an aimed material.

CONSTITUTION: Each specified amt. of halide or nitrate of at least one kind of element M<sub>1</sub> selected from B, Al, Ga, In, Ti, Sc, Y, and lanthanides (La-Lu), at least one kind of element M<sub>2</sub> selected from Be, Mg, Ca, Sr, Ba, Ra, Sn, and Pb, and an element M<sub>3</sub>(=Cu) is hydrolyzed or solvolyzed under heating or without heating after adding, if necessary, an org. material having  $\geq 2$  OH groups, in the presence of an alkali hydrolyzing agent or a solvolyzing agent (such as tetraalkyl ammonium hydroxide) contg. no alkali metal capable of generating OH ions or alkoxide ions in aq. soln. or in an org. solvent. The hydrolyzed or solvolyzed product is isolated, and heated in (non)oxygen atmosphere, to obtain thus a superconductor expressed by formula (wherein x-w are optional mole fractions).

COPYRIGHT: (C)1988,JPO&Japio